Remarks

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Previously presented claims 28-31 and new claims 32-33 are presented upon entry of the above amendments. This communication constitutes a bona fide attempt by applicants to advance prosecution of the application and obtain allowance of the claims, and is in no way meant to acquiesce to the substance of the rejections.

For explanatory purposes, applicants discuss herein one or more differences between the applied references and the claimed invention with reference to one or more parts of the applied references. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the applied references correspond to the claimed invention.

Claim 28 was rejected under 35 U.S.C. 103 as being unpatentable over Kowaguchi (U.S. Patent No. 6,201,973) in view of Tomoike (U.S. Patent No. 6,233,447) and in further view of Murayama (U.S. Patent No. 6,643,514). It is respectfully submitted that claim 28 is not rendered obvious in view of these references for the reasons explained below.

In claim 28 location information for one or more designated geographical areas is stored in a mobile communication device. The mobile communication device determines when it is within one of the one or more designated geographical areas. Activation of an audible incoming call indicator at the mobile communication device is prevented while it is within one of the one or more designated geographical areas. The latter step includes receiving a first signal at the mobile communication device from its supporting exchange wherein the signal represents that the one of the one or more designated geographical areas comprises one or more high traffic areas. Activation of the audible incoming call indicator is prevented in the mobile communication device in response to receipt of the first signal.

It was acknowledged in the Office Action that Kowaguchi in view of Tomoike does not teach the steps of claim 28 of "receiving at the mobile communication device a first signal from a supporting exchange representing that the one of the one or more designated geographical areas comprises one or more high traffic areas; and preventing activation of the audible incoming call indicator in the mobile communication device in response to receipt of the first signal." Thus,

the Office Action relies on Murayama as teaching these limitations, and the teaching of this reference is then combined with other two references to satisfy all the limitations of claim 28.

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Murayama is directed to a technique in which call requests are distributed among a plurality of processors at a "radio exchanging station". The radio exchanging station 1 includes a selection processor 10 that controls the load for each of a plurality of execution processors 21-2N. The load handled by the execution processors consists of handling call requests. Each of the execution processors is connected to a respective radio resource 31-3N. The stated object of Murayama is to provide a called distribution method which is capable of decreasing distribution for call execution processors by use of a selection processor; see the Murayama Summary of the Invention section.

Upon reviewing the entirety of Murayama it will be clear to one of ordinary skill the art that the "radio exchanging station" consists of what is commonly termed in the wireless/cellular industry as a mobile switching center that includes one or more telecommunication switches coupled to one or more wireless base stations. It is apparent, based on the language utilized and the claimed priority to an earlier filed Japanese patent application, that this patent was based on a translation from an original Japanese document. The selection processor 10 and the execution processors may reside in one switch or be distributed among more than one switch. The radio resources are stand-alone wireless base stations. Thus, the entirety of the radio exchanging station 1 is directed to fixed infrastructure telecommunication equipment.

As stated in the Office Action:

"Murayama teaches of receiving at the mobile communication device a first signal from a supporting exchange representing that the one of the one or more designated geographical areas comprises one or more high traffic areas (column 4, lines 47-54 and columns 5 and 6, lines 66-67 and 1-15, respectively; wherein the call processing execution processor sends the disconnect signal that is an indication of a designated high traffic area)."

Applicant respectfully disagrees with the above interpretation and conclusions regarding the teachings of Murayama. In Murayama at column 4, lines 47-54, reference is made to FIG. 3. It is clear based on this text and FIG. 3 that the execution processors periodically notify the

selection processor 10 of whether a corresponding radio resource is in a free condition (able to process an additional call) or in a disabled condition (not able to process an additional call). First, it should be noted that these communications are from the execution processor to the selection processor, both of which are part of the wireless infrastructure equipment and not part of a mobile device. As explained above, the radio resources correspond to infrastructure base stations, which are of course also not part of a mobile device.

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It should also be noted that the communication of a disabled condition of the corresponding radio resource by the associated execution processor to the selection processor does not inherently mean that a high traffic condition exists for the subject execution processor. For example, the corresponding radio resource (base station) may simply have been taken out of service for normal maintenance or a communication problem may exist between the radio resource and the corresponding execution processor. None of these conditions which would give rise to a disabled condition being reported by the execution processor and transmitted to the selection processor would mean that high traffic congestion or a high traffic area was present.

In Murayama at column 5, lines 66 through column 6, line 15, the text discusses part of the process shown and FIG. 6. If a radio resource is not available for an associated execution processor, the next execution processor is considered. If a radio resource is available for an associated execution processor, a determination is made in step 54 of whether at least one more call can be handled by that execution processor. A NO determination in step 54 again causes the next execution processor to be considered. A YES determination in step 54 causes an available call handling counter to be decremented and the execution processor is designated to handle the associated call request. If all of the N execution processors have been considered (retrieved) at step 52 indicating that none of the execution processors are available to handle the call request, a YES determination by step 52 results in "no distribution" at step 58. That is, the call request is not distributed by the selection processor to any of the execution processors. This results in the subject call request at least being held if not denied at the infrastructure equipment.

In the Office Action it was stated that the execution processor "sends the disconnect signal that is an indication on a designated high traffic area." Nowhere in the cited text is there a

teaching of sending a "disconnect signal". As described in the text and shown in FIG. 6, a "no distribution" determination in step 58 is made if no execution processors are available to handle the requested new call. Each execution processor, as polled by the selection processor, returns an indication of whether it can accommodate a new call. Even if an execution processor returns a NO indication, this is not an equivalent of a disconnect signal. It is merely an indication that this particular execution processor cannot at the current time accommodate handling a new call. It is the selection processor that must make a determination if none of the execution processors have the capability to handle the new call request.

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It is the requirement of the limitation of claim 28 that must be fairly taught or suggested by the applied reference. Claim 28 requires "receiving at the mobile communication device a first signal from a supporting exchange representing that the one of the one or more designated geographical areas comprises one or more high traffic areas." This requirement is simply not taught or fairly suggested by Murayama. First, as explained in detail above, Murayama is directed only to communications among wireless infrastructure equipment, not with or to a mobile unit. It provides no teaching or suggestion of the sending of a "not available" signal to a mobile communication device from a supported exchange with regard to the handling of incoming call requests. Second, the reports provided from the execution processors to the selection processor in Murayama are not inherently indicative of a geographical area experiencing high traffic congestion; see the examples explained above. Third, if a "no distribution" determination is made in Murayama, this would mean that the subject call request would not be completed at the infrastructure equipment and hence no communications would be established with or transmitted to a destination mobile communication device. Hence, Murayama does not provide a teaching of receiving a first signal at a mobile communication device from a supporting exchange for the signal represents that one of the one or more designated geographical areas comprises one or more high traffic areas. Therefore, the withdrawal of the rejection of claim 28 based on the applied references is requested, and believed to be appropriate.

Claim 29 was rejected under 35 U.S.C. 103 based on the same three references with reliance again being placed on Murayama to supply the further limitation recited in claim 29.

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That is, the limitation that must be found in Murayama is the transmission to a mobile communication device of location information for the one or more first high traffic areas wherein the use of audible incoming call indicators is restricted. Murayama provides no teaching, and hence not the required teaching, of the transmission of control signals to a mobile communication device. Murayama is only concerned with communications among wireless infrastructure equipment as explained above. Further, there is no indication in Murayama even with regard to the communication among infrastructure equipment that information is provided that designates specific areas as being high traffic areas. Thus, claim 29 is not rendered obvious based on the combination of the applied references.

Claim 30 was also rejected under 35 U.S.C. 103 based on the same three references, and again Murayama was relied upon as applying the "receiving of a first signal" limitation as discussed above with regard to claim 28. For the reasons explained above, Murayama does not supply the required teaching, and hence the rejection of claim 29 based on the applied three references should be withdrawn.

Claim 31 is believed to be allowable for reasons similar to that explained above with regard to claim 29.

New claims 32 and 33 are presented for consideration. It is believed that these claims provide additional distinctions of patentable significance when considered in combination with the parent claims.

One of ordinary skill in the art would not arrive at the invention according to claims 28 and/or 30 since such a person would find the disclosure of Tomoike to teach away from making the combination suggested in the Office Action. It is well-settled that teachings of a reference that teach away from a limitation of the claimed invention must be considered as well as teachings of the reference that could point towards the invention. A general objective of Tomoike is to not place a heavier load, i.e. require additional processing and actions, by an already congested exchange. This would lead one of ordinary skill in the art to not have a congested exchange, i.e. the exchange supporting communications with the subject mobile

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device, attempt to send any information to the mobile, especially about an attempted call that is intentionally not set up since such a communication would inherently increase the load on the already congested exchange. Thus, one of ordinary skill in the art if faced with combining the teachings of Tomoike with the other two references would likely implement the interruption of an attempted call path routing solely by the infrastructure as described in Tomoike. Based on the teachings of Tomoike to avoid further loading of a congested exchange, one of ordinary skill the art would not have such a congested exchange attempt to communicate a signal to a supported mobile device, and hence the inventions according to claims 28 and 30 are not rendered obvious even in view of the combination of these three references.

If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicants' attorney at 630-584-9206.

Respectfully submitted,

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